



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,015	10/21/2003	Jean Marc Berthaud	FR920020058US1	4790
46583	7590	04/21/2008		
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER RUSSELL, WANDA Z				
ART UNIT 2616		PAPER NUMBER		
NOTIFICATION DATE 04/21/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary

Application No.

10/690,015

Applicant(s)

BERTHAUD ET AL.

Examiner

WANDA Z. RUSSELL

Art Unit

2616

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-4, and 7-12** are rejected under 35 U.S.C. 102(e) as being anticipated by Klinker et al. (U.S. Patent 7,133,365 B2).

For **claim 1**, Klinker et al. teach a method for routing (refer to col. 2, line 51) a datagram (data, refer to col. 2, line 51) in an IP (col. 6, lines 41-43) network, said method comprising the steps of:

receiving a datagram with a destination network address (col. 6, lines 41-43);

identifying (selection, col. 6, line 41) a next hop router path (different path, refer to col. 6, line 45) en route to or associated with said destination network address (The path selection process relies on known source and destination IP addresses, refer to col. 6, lines 43-45); and

determining (determine, refer to col. 20, line 50) whether or not transmission of said datagram on a link to said next hop router would result in a bandwidth usage exceeding a bandwidth threshold (utilization alarm threshold, col. 20, line 31) associated with said next hop router (Fig. 12, and next-hop, refer to col. 20, line 26), and

if not, updating (reconstruct, refer to col. 20, line 53) the bandwidth usage associated with said next hop router, and transmitting said datagram to said next hop router (to routers, refer to Fig. 12),

if so, selecting among other possible next hop routers en route to or associated with said destination address, another next hop router for which transmission of said datagram on a link to said other next hop router would not result in a bandwidth usage exceeding a bandwidth threshold associated with said other next hop router, updating the bandwidth usage associated with said other next hop router, and transmitting said datagram to said other next hop router (determine an alternate route based ... on a router's free bandwidth, refer to col. 21, lines 8-9).

For **claim 2**, Klinker et al. teach the method as set forth in claim 1, wherein the step of selecting comprises the steps of:

if, among said other possible next hop routers, there is no other next hop router for which the transmission of the datagram on the respective link would result in the bandwidth usage being less than the respective bandwidth threshold, choosing among said other possible next hop routers, another next hop router (determine an alternate route based ... on a router's free bandwidth, refer to col. 21, lines 8-9), updating the bandwidth threshold associated with said other (reconstruct ... threshold, refer to col. 20, line 21, lines 21-23, and line 31), chosen next hop router with a larger, predefined bandwidth threshold (in accordance with the flow policy, refer to col. 21, line 10. Policy implies bandwidth threshold. Also refer to threshold, col. 20, line 31); and transmitting the datagram to said other, chosen next hop router (to routers, refer to Fig. 12).

For **claim 3**, Klinker et al. teach the method as set forth in claim 1 wherein the step of determining, comprises the step of adding a bandwidth usage associated with said next hop router immediately before transmission of said datagram on said link to said next hop router to a bandwidth usage required for transmission of said datagram on said link to said next hop router (Usage collector 1215 accepts provider configuration information 1271 related to each NSP connection, ... next-hop ... bandwidth, refer to col. 20, lines 22-23, and line 26 & 28), and comparing a result of said adding step to the bandwidth threshold associated with said next hop router (This NSP configuration information details provider interfaces on the various routers, ... next-hop ... circuit bandwidth for calculating the utilization, refer to col. 20, lines 21-31).

For **claim 4**, Klinker et al. teach the method as set forth in claim 1 wherein the step of updating the bandwidth usage associated with the first said next hop router, comprises the step of updating in a table, the current bandwidth usage with the estimated bandwidth usage (byte counters, refer to col. 20, line 16 & lines 13-20).

For **claim 7**, Klinker et al. teach the method as set forth in claim 2 , wherein the step of choosing among said other possible next hop routers, comprises the step of choosing among said other possible next hop routers, a next hop router according to a shortest path algorithm (shortest path, refer to col. 34, line 51).

For **claim 8**, Klinker et al. teach the method as set forth in claim 1, wherein a bandwidth usage of a link to said next hop router is based on other datagrams that have been transmitted on said link within a time period prior to a current time (FIG. 14 illustrates how the availability of "free" bandwidth is expressed for a given provider and

is measured by usage collector 214 of FIG. 2. Over any given time period from t0 through t1, current usage rate 1602 ... determined, refer to col. 26, lines 18-22).

For **claim 9 and 12**, they are means claims (refer to 200 in Fig. 2) corresponding to method claim 1 and 2, therefore they are rejected for the same reason above.

For **claim 10 and 11**, they are computer program product claims corresponding to method claim 1 and 2, therefore they are rejected for the same reason above.

Response to Arguments

3. Applicant's arguments, filed 1/16/2008 have been fully considered but they are not persuasive.
4. Applicant argues that Klinker does not include the feature of determining whether or not transmission of a datagram on a link to the next hop router would result in a bandwidth usage exceeding a bandwidth threshold associated with the next hop router.

In response, the Examiner respectfully disagrees.

Klinker teaches "Utilization information 264 includes data representing utilization trends for use" (refer to col. 20, lines 46-47).

5. Applicant argues that Klinker estimates whether an entire NSP's bandwidth has been exceeded, regardless of whether individual routers within the NSP have exceeded their bandwidth policy.

In response, the Examiner respectfully disagrees.

Klinker teaches "Usage collector 1215 accepts provider configuration information 1271 related to each NSP connection. This NSP configuration information 1271 details provider interfaces on the various routers" (refer to col. 20, lines 22-25, and Fig. 12).

6. Applicant argues that Klinker's routing table is not used to update current bandwidth usage with the estimated bandwidth usage.

In response, the Examiner respectfully disagrees.

Klinker teaches "Usage collector 1215 operates to collect usage information 1273 from network providers, such as byte counters (i.e., the amount of traffic transmitted to and received from network service providers)" (refer to col. 20, lines 14-17) and "...reconstruct" (refer to col. 20, line 21). Here the byte counters are a table used to update (reconstruct) current bandwidth (amount of traffic) usage.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WANDA Z. RUSSELL whose telephone number is

Art Unit: 2616

(571)270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/
Supervisory Patent Examiner,
Art Unit 2616

WZR/Wanda Z Russell/
Examiner, Art Unit 2616